National Aeronautics and Space Administration

countdown

September 1, 2009 Vol. 14, No. 66

Discovery's docking to ISS more challenging than most

NASA TV briefing will preview launch of Japan's cargo spacecraft

◆ **Mission Update**: STS-128 Commander Rick Sturckow flew the first-ever rendezvous and docking with the loss of vernier jets Sunday using the reaction control system. The piloting task without verniers is slightly more challenging because of the different autopilot modes the crew trains for. The crew has trained in this procedure and followed the textbook. According to the mission management team, they probably used a little more propellant than a standard vernier rendezvous. The soft docking was complete at 8:54 p.m. EDT.

At 11:49 p.m. Sunday, Nicole Stott exchanged Soyuz seat liners with space station Flight Engineer Tim Kopra. Stott now is a member of the space station Expedition 20 crew, and Kopra is a member of Discovery's crew. Kopra spent 44 days on the ISS.

Today, Mission Specialist Danny Olivas and Stott will make the mission's first spacewalk, starting at 5:49 p.m.

◆ **NASA Update:** NASA will hold a news briefing at 1:30 p.m. EDT tomorrow to preview the maiden launch and flight of Japan's unpiloted H-II Transfer Vehicle, or HTV, cargo spacecraft to ISS.

NASA TV will broadcast the briefing live from Johnson Space Center. Participants in the briefing will include officials from NASA and the Japan Aerospace Exploration Agency, known as JAXA. NASA TV also will broadcast HTV's launch and flight live .

The HTV is scheduled to lift off on an H-IIB rocket from JAXA's Tanegashima Space Center in southern Japan at about 1 p.m. EDT Sept. 10 . NASA TV coverage of the launch will begin at 12:45 p.m. The HTV will augment the European Space Agency's automated transportation vehicles and the Russian Progress ships that deliver supplies to the space station.

As the 165-ton cargo craft makes its week-long journey to the space station, flight controllers in Tsukuba, Japan, and at mission control in Houston will conduct a number of tests of HTV's rendezvous and navigation systems.

NASA TV coverage of the cargo craft's arrival at the station will begin at 3 p.m. Sept. 17. As the HTV moves within about 40 feet of the orbiting laboratory, space station crew members will capture the craft using the station's Canadarm2 robotic arm. The crew then will attach the HTV to an Earth-facing docking port on the station's Harmony connecting module. The robotic maneuvers are set to begin at about 3:50 p.m. Sept. 17.

■ **Call For Papers to the Aerospace Mechanisms Symposium 2010** — The NASA Aerospace Mechanisms Symposium is concerned with the problems of design, fabrication, test and operational use of aerospace mechanisms. Emphasis is on hardware developments. The symposium provides both a social and technical forum for personnel active in the field of mechanisms technology, as well as a source of information for others with an interest in this field.

Sponsored by the Mechanisms Education Association and hosted by NASA and Lockheed Martin Space Systems, the symposium site rotates among eight NASA centers. The 2010 event will be hosted by KSC May 12-14. The symposium attracts papers and attendees internationally. Lessons-learned papers are important as they are often more valuable since they help others avoid similar problems in the future. Paper summaries are due Sept. 15. Further details can be found at: **http://www.aeromechanisms.com**.

■ **It Takes Teamwork** – Mark your calendar: From 10 to 11:30 a.m. on Sept. 10, KSC will feature guest speaker Coach Herman Boone, who will share his inspiring story that was captured in the Disney film, "Remember the Titans." Coach Boone's personal story about respect, teamwork, community involvement and importance of character is truly inspirational and will remind us all, "It Takes Teamwork!" Directly following the presentation, participants can join in a "tailgate gathering" with food and games. Seating allocations have been distributed.

■ **Shuttle Safety Hotline** — The Space Shuttle Program Safety and Mission Assurance Office has a shuttle safety hotline site at: **http://shuttlesafetyhotline-sma.jsc.nasa.gov/** that outlines routes to communicate shuttle safety concerns.

Countdown is published every Tuesday & Thursday for NASA KSC employees. Deadlines are 9 a.m. Mondays & Wednesdays. E-mail news to *anita.l.barret@nasa.gov*. For questions or information, e-mail or call 867-2815. You can also find PDF editions of *Countdown* on the Web at: **http://www.nasa.gov/centers/kennedy/news/countdown/countdown_toc.html**.